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Amendments to the Claims

The following listing of claims will replace all prior versions, and listings, of claims in the present application:

1-2. (canceled)

3. (currently amended) A coated machine tool as claimed in claim 2 wherein said chemically inert overlayer has a thickness of between about 0.5 and about 3.0 microns.

4. (currently amended) A coated machine tool as claimed in claim 2 wherein said chemically inert overlayer has a thickness of about 0.6 microns.

5. (currently amended) A coated machine tool ~~as claimed in claim 1~~ comprising a multilayer wear resistant coating applied to a base material of said machine tool, said coating comprising a relatively hard underlayer and an yttrium oxide overlayer, wherein:
said relatively hard underlayer is formed over said base material of said machine tool and comprises a pair of layers, one of said layers comprising a metal and the other of said layers comprising a metal nitride, metal carbide, or metal carbo-nitride;
said yttrium oxide overlayer is formed of yttrium oxide over said underlayer; and
said yttrium oxide overlayer is substantially chemically inert with respect to titanium.

6. (Original) A coated machine tool as claimed in claim 5 wherein said metal comprises a layer of material selected from a group comprising Ti, Cr, Al, and combinations thereof.

7. (currently amended) A coated machine tool as claimed in claim 2 wherein said relatively hard underlayer comprises a layer of material selected from a group of metal nitrides, metal carbides, metal carbo-nitrides and combinations thereof.

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8. (currently amended) A coated machine tool as claimed in claim 9 wherein said relatively hard underlayer comprises a layer of material selected from a group including TiN, TiCN, TiAlN, and combinations thereof.

9. (currently amended) A coated machine tool ~~as claimed in claim 1~~ comprising a multilayer wear resistant coating applied to a base material of said machine tool, said coating comprising a relatively hard underlayer and a chemically inert yttrium oxide overlayer, wherein:

said relatively hard underlayer is formed over said base material of said machine tool and comprises titanium and yttrium;

said yttrium oxide overlayer is formed of yttrium oxide over said underlayer; and

said yttrium oxide overlayer is substantially chemically inert with respect to titanium.

10. (Original) A coated machine tool as claimed in claim 9 wherein said relatively hard underlayer comprises TiAlYN.

11. (currently amended) A coated machine tool as claimed in claim 9 wherein said relatively hard underlayer comprises a layer of material including components selected from a group including Ti, Cr, Al, Zr, Hf, Y, and combinations thereof.

12. (currently amended) A coated machine tool as claimed in claim 9 wherein said relatively hard underlayer comprises a monolayer of a metal nitride, carbide, or carbo-nitride monolayer.

13. (currently amended) A coated machine tool as claimed in claim 9 wherein said relatively hard underlayer comprises a multilayer structure including an elemental metallic layer and a nitride, carbide, or carbo-nitride metallic layer.

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14. (currently amended) A coated machine tool as claimed in claim 9 wherein said relatively hard underlayer has a thickness of between about 1 and about 5 microns.

15. (currently amended) A coated machine tool as claimed in claim 9 wherein said relatively hard underlayer has a thickness of about 2 microns.

16. (currently amended) A coated machine tool as claimed in claim 9 wherein said multilayer wear resistant coating further comprises an interlayer between said underlayer and said overlayer, and wherein said interlayer comprises a metal.

17. (Original) A coated machine tool as claimed in claim 16 wherein said metal interlayer comprises a metal selected from Ti, Al, Zr, Hf, Nb, V and combinations thereof.

18. (Original) A coated machine tool as claimed in claim 16 wherein said interlayer comprises at least two different materials and wherein the relative proportions of said two different materials are graded across said interlayer.

19. (currently amended) A coated machine tool comprising a multilayer wear resistant coating applied to ~~for application to~~ a base material of said machine tool, said coating comprising a relatively hard underlayer and a chemically inert metal oxide overlayer, wherein:

said relatively hard underlayer is formed over said base material of said machine tool and comprises at least two layers;

one of said layers of said underlayer comprises a metal and is formed over said base material;

another of said layers of said underlayer comprises a metal nitride, metal carbide, or metal carbo-nitride and is formed over said metal layer;

said metal oxide overlayer is formed of a metal oxide over said underlayer;

said metal oxide overlayer is substantially chemically inert with respect to titanium; ~~and~~

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~~said overlayer comprises a metal oxide.~~

20. (Original) A coated machine tool as claimed in claim 19 wherein said metal oxide comprises a rare earth oxide.

21. (Original) A coated machine tool as claimed in claim 19 wherein said metal oxide comprises an oxide of scandium

22. (Original) A coated machine tool as claimed in claim 19 wherein said metal oxide comprises an oxide of lanthanum.

23. (Original) A coated machine tool as claimed in claim 19 wherein said metal oxide comprises an oxide of yttrium.

24. (Original) A coated machine tool as claimed in claim 19 wherein said metal oxide comprises an oxide of zirconium.

25. (Original) A coated machine tool as claimed in claim 19 wherein said metal oxide comprises an oxide of hafnium.

26. (Original) A coated machine tool as claimed in claim 19 wherein said metal oxide comprises an oxide of niobium.

Claims 27-45. (Canceled)

46. (New) A coated machine tool comprising a multilayer wear resistant coating for application to a base material of said machine tool, said coating comprising a relatively hard underlayer, a chemically inert metal oxide overlayer, and an interlayer between said underlayer and said overlayer, wherein:

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said relatively hard underlayer is formed over said base material of said machine tool;

said metal oxide overlayer comprises an oxide of a first metal and is formed over said interlayer;

said interlayer comprises first and second components;

said first component of said interlayer comprises said first metal;

relative proportions of said first and second components of said interlayer are graded across said interlayer such that a quantity of said first metal in said interlayer increases from a side of said interlayer adjacent to said underlayer to a side of said interlayer adjacent to said overlayer.

47. (New) A coated machine tool as claimed in claim 46 wherein:

said metal oxide overlayer comprises an yttrium oxide overlayer;

said first component of said interlayer comprises yttrium; and

a quantity of said yttrium in said interlayer increases from a side of said interlayer adjacent to said underlayer to a side of said interlayer adjacent to said overlayer.